

Appendix A

Consultation Letters and Information



US Army Corps
of Engineers
New England District

696 Virginia Road
Concord, MA 01742-2751

PUBLIC NOTICE

Date: November 2, 1999
Comment Period Ends: December 2, 1999
File Number: 199902869
In Reply Refer To: Mr. Laurie Suda
or by e-mail to: laurie.suda@usace.army.mil

Worldwide Telecom Inc., 1066 West Hastings Street, Vancouver, BC, Canada, V6E 3X1 has requested a Corps of Engineers permit under Section 10 of the Rivers and Harbors Act of 1899, to install a marine fiber optic cable from Nova Scotia, Canada, crossing into United States waters in the Gulf of Maine, and making landfall at Lynn Beach, Lynn, MA as shown on plan entitled "Figure 2-4". Two alternate routes are being considered as shown on the plan entitled: "Figure 2-1".

The cable will be launched from a surface vessel to a towed seaplow, which will open a furrow in the ocean substrate, place the cable to a minimum depth of one meter, and close the furrow over the laid cable. At a point approximately 1250 meters offshore at Lynn, and seaward of the outermost edge of a submerged aquatic vegetation (SAV) bed, the deployment will transition to a directional bore under the SAV, surfacing landward of the high tide line on the beach, as shown on the plan entitled: "Figure A-1".

The cable is 2 inches in diameter. There will be periodic installations of in-line repeaters, approximately 1 foot in diameter and 5' long. In addition to the fiber optic signal, there is provision for a 3.5Kvolt dc current to power the repeaters.


With regard to Essential Fish Habitat, the proponent will provide an assessment of temporary construction impacts on a wide variety of federally managed fisheries resources, with appropriate mitigation components. The National Marine Fisheries Service will make conservation recommendations as necessary.

Landfall for this project is located on the USGS Lynn quadrangle sheet at UTM coordinates N 4702.1 and E 0340.8.

In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. Comments should be submitted in writing by the above date. If you have any questions, please contact Mr. Laurie Suda at (978) 318-8493 or use our toll free number (800) 343-4789 or (800) 362-4367, if calling from within Massachusetts.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

SEE NEXT PAGE FOR
DETAILS OF EVALUATION FACTORS


Karen Kirk Adams
Chief, Permits & Enforcement Section
Regulatory Branch

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity in the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detrimental. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972 as amended.

Based on his initial review, the District Engineer has determined that little likelihood exists for the proposed work to impinge upon properties listed in, or eligible for listing in, the National Register of Historic Places, and no further consideration of the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, is necessary. This determination is based upon one or more of the following:

- a. The permit area has been extensively modified by previous work.
- b. The permit area has been recently created.
- c. The proposed activity is of limited nature and scope.
- d. Review of the latest published version of the National Register shows that no presence of registered properties listed as being eligible for inclusion therein are in the permit area or general vicinity.

Pursuant to the Endangered Species Act, the District Engineer is hereby requesting that the appropriate Federal Agency provide comments regarding the presence of and potential impacts to listed species or its critical habitat.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice.

The following authorizations have been applied for, or have been, or will be obtained:

- (X) Permit, License or Assent from State.
- (X) Permit from Local Wetland Agency or Conservation Commission.
- () Water Quality Certification in accordance with Section 401 of the Clean Water Act.

The States of Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island have approved Coastal Zone Management Programs. Where applicable the applicant states that any proposed activity will comply with and will be conducted in a manner that is consistent with the approved Coastal Zone Management Program. By this Public Notice, we are requesting the State concurrence or objection to the applicant's consistency statement.

All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

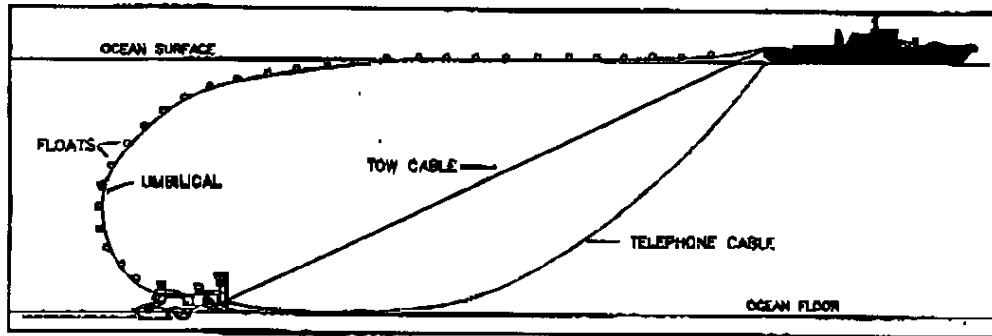
THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.

If you would prefer not to continue receiving public notices, please check here () and return this portion of the public notice to: U.S. Army Corps of Engineers - New England District, ATTN: Regulatory Branch, 696 Virginia Road, Concord, MA 01742-3751.

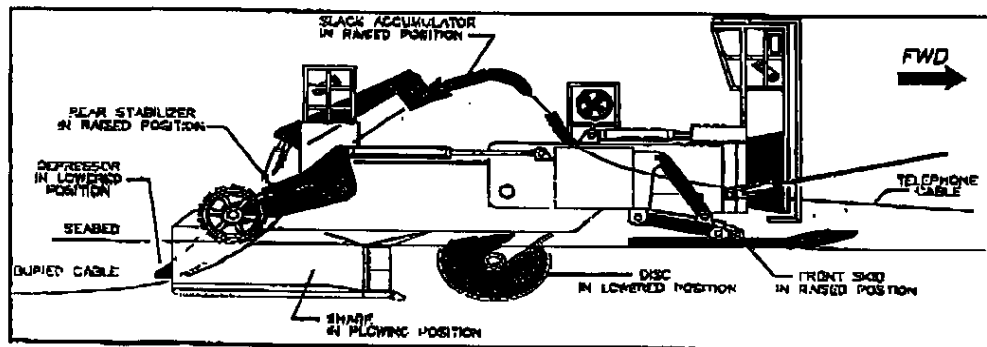
NAME:
ADDRESS:

Hibernia Transatlantic Project

Submarine Cable Installation Figures



SeaPlow VII Burial Plowing Configuration



SeaPlow VII in Cable Burial Mode

Worldwide Telecom, Inc.
1510, 1066 West Hastings Street
Vancouver, British Columbia
Canada, V6E 3X1

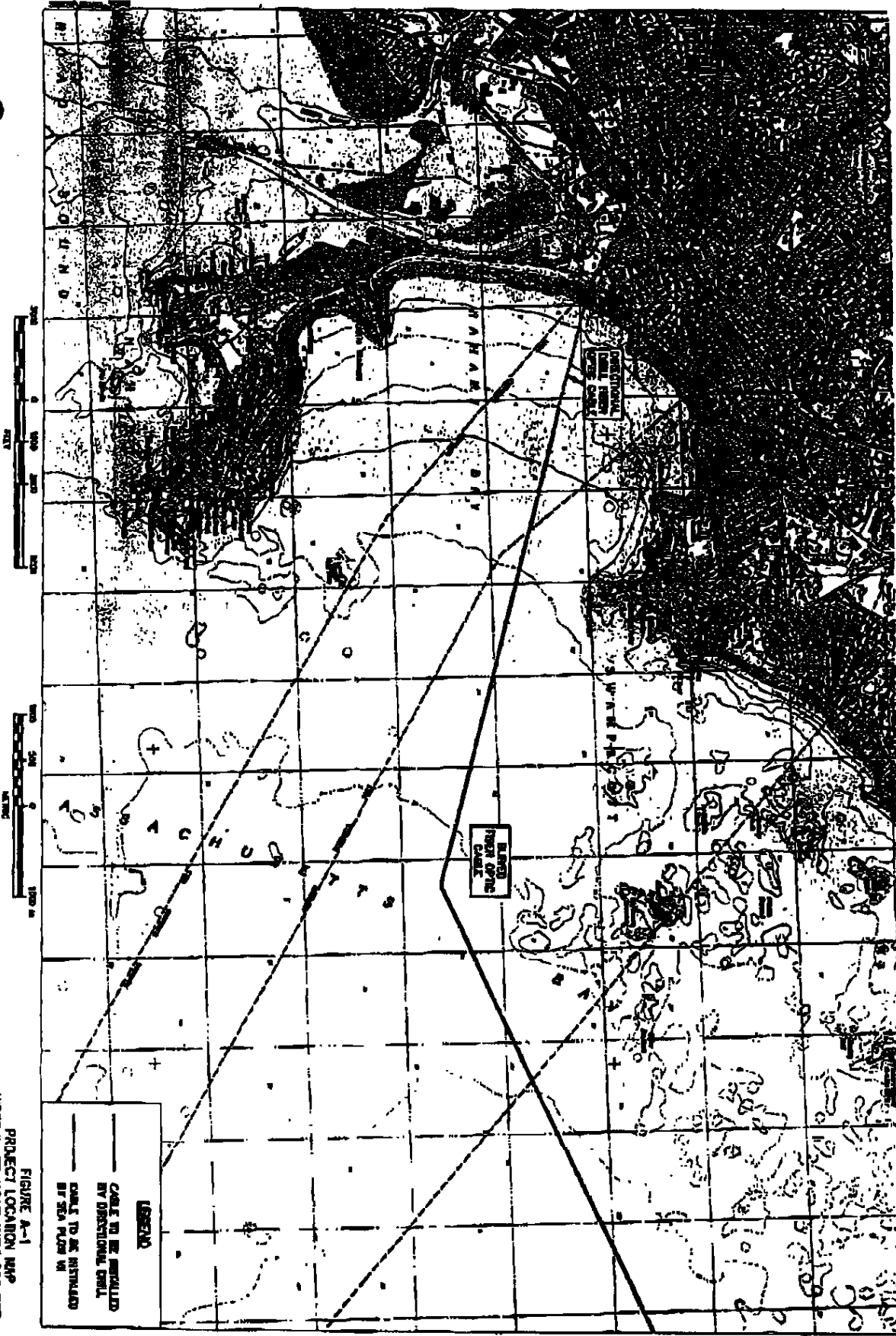
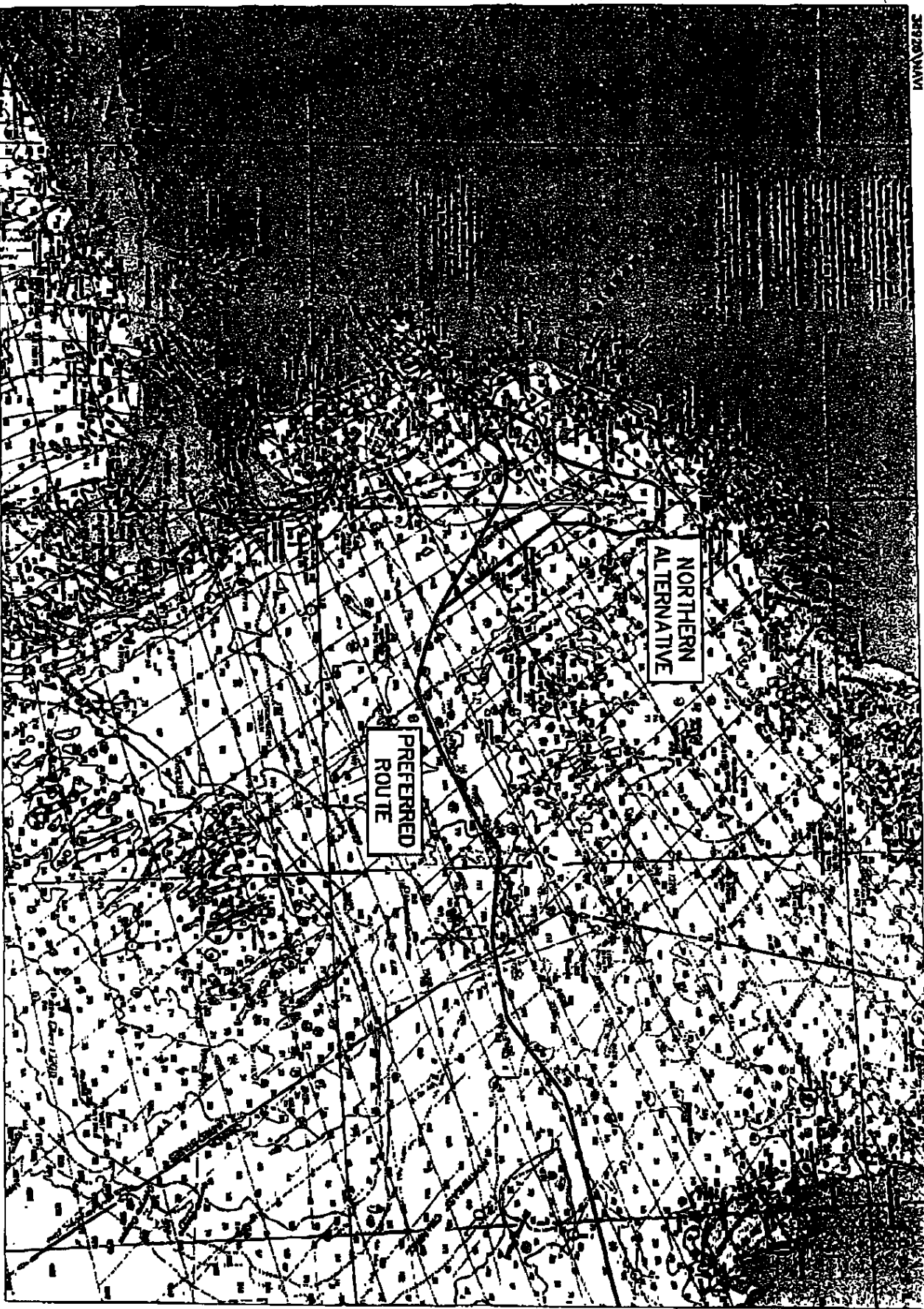


FIGURE A-1
PROJECT LOCATION MAP
IBERIAN TRANSATLANTIC PROJECT





SCALE: 1"=200,000'

FIGURE 2-1
PROJECT LOCATION MAP
HIBERNIA TRANSATLANTIC PROJECT



DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO
ATTENTION OF

April 6, 2000

Regulatory Branch
CENAE-CO-R-199902369

Mr. Scott Lyons, Director
Worldwide Telecom, Inc.
150, 1066 West Hasting Street
Vancouver, British Columbia, Canada, V6E 3X1

Dear Mr. Lyons:

Enclosed are two copies of a Department of the Army permit authorizing the work described therein. Your signature is necessary to execute this permit. The authorized work cannot start until we receive a complete, signed copy of the permit. If the conditions are acceptable, please sign both copies and return one signed copy of the entire permit to us. A fee of \$10.00/\$100.00 is required. Please enclose a check made payable to "FAO New England District", and return it with the signed permit copy. Please ensure your address and social security number, or tax identification number for businesses, are on the check.

Please post the enclosed ENG form 4336 (i.e., Notice of Authorization) in a conspicuous location at the job site whenever work is ongoing. This permit requires you to notify us before beginning work so that we may inspect the project. Therefore, please complete and return the attached Work Start Notification Form(s) to this office no later than two weeks before the anticipated starting date. If the plans or construction methods (i.e., for work in our jurisdiction) need to be changed, please contact us immediately to discuss modification of your permit prior to undertaking these changes.

This permit is a limited authorization containing a specific set of conditions. Please read the permit thoroughly to familiarize yourself with those conditions, including any conditions contained on the attached state water quality certification. If a contractor does the work for you, both you and the contractor are responsible for ensuring that the work is done in compliance with the permit's terms and conditions, as any violations could result in civil or criminal penalties.

The Corps of Engineers has consulted with the National Marine Fisheries Service (NMFS) regarding the effects of your project on Essential Fish Habitat (EFH) designated under the Magnuson-Stevens Fishery Conservation and Management Act. NMFS provided EFH conservation recommendations, which we included in the attached special condition # 6. This condition will reduce impacts to EFH.


Finally, please note that the Department of the Army permit process does not supersede any other agency's jurisdiction. Hence, if other federal, state, and/or local agencies have jurisdiction over your project, you must receive all applicable permits before you may begin work.

The Corps of Engineers recently issued final regulations regarding an administrative appeals process for permit denials or proffered permits that you object to the terms and conditions of. A Notification of Applicant Options (NAO) form and flowchart are enclosed with this letter, which explains the appeals process and your options. The North Atlantic Division Office will hear all accepted appeals. However, in order to retain your right to appeal, should you

intend to, you must respond to the attached NAO form within 60 days of this letter's date. Responses and questions regarding the Corps of Engineers appeals process should be directed to Ms. Christine Godfrey, Policy and Technical Support Section at (978) 318-8673 or at the above address.

If you have any questions regarding this correspondence, please contact (Mr.) Laurie H. Suda at (978) 318-8493, (800) 343-4789, or use (800) 363-4367 within Massachusetts.

Sincerely,



William F. Lawless, P.E.
Chief, Regulatory Branch
Construction/Operations Division

Enclosures



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
One Blackburn Drive
Gloucester, MA 01830-2298

MAR 3 2000

William F. Lawless
Chief, Regulatory Branch
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

RE: Worldwide Telecom, Inc. Hibernia Fiber Optic Cable Project (Corps #99-2369)

Dear Mr. Lawless:

We have reviewed the public notice and associated application documents submitted by Worldwide Telecom, Inc. to install a high capacity fiber optic cable between Lynn, Massachusetts and Halifax, Nova Scotia. This cable project would be interconnected with a pending Halifax to Dublin, Ireland and Liverpool, England fiber optic project. The applicants proposed alternative would route the cable across the Gulf of Maine, through Wilkinson Basin and traverse approximately 17 miles of the Gerry E. Studds Stellwagen Bank Marine Sanctuary to the cable-landing site at Lynn Beach. The preferred alternative was chosen such that the entirety of the cable would be deployed in soft bottom sediments and therefore provide maximum avoidance of ledge out-croppings and rocky/cobble bottom habitat. We do not object to issuance of this permit provided that the permit is appropriately conditioned to minimize and avoid potential impacts to living marine resources.

The method of installation includes a combination of directional drilling and "sea-plow" technology. Directional drilling will be used to install the steel conduit and cable from the upland location in Lynn to the 5-meter water depth located approximately 1500 meters offshore. Directional drilling was incorporated into the project to avoid impacts to a nearshore eelgrass (*Zostera marina*) bed. Seaward of the directional drilled section, the cable will be installed with a sea-plow cable installation machine that is controlled from a surface cable ship. The plow process would temporarily displace a shallow wedge of the seabed (approximately 1 meter wide x 1.5 meters deep) and install the cable within the trench. The displaced soil would then immediately be returned to the trench to cover the cable. The cable installation would progress at a rate of approximately 0.5-1.0 knots. We recommend that post deployment surveys be conducted within 30 days following installation of the cable and again four years post installation in order to document that targeted depths of deployment were reached. Pending the results of the post deployment surveys, it may be necessary for NMFS to provide additional Essential Fish Habitat (EFH) or Endangered Species Act (ESA) conservation recommendations.

Worldwide Telecom, Inc. completed an EFH impact assessment which identified potential project impacts on a wide variety of federally managed species and their



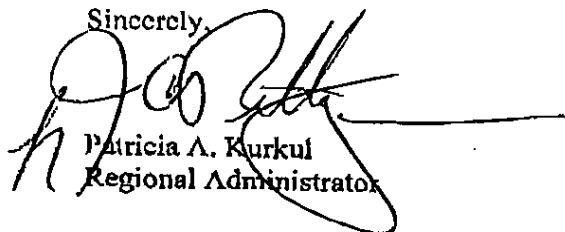
required habitats that are located along the cable route. The assessment analyzed minimization of aquatic impacts in association with the methods of installation, identification of important resource areas, specific physical bottom habitat characteristics and available fish life histories. In general, sedentary and slow-moving benthic organisms will be injured and killed during the cable installation and mobile benthic species are expected to avoid the direct impact by moving out of the way of the deployment. The EFII assessment concludes, and we concur, that installation of the fiber optic cable would adversely affect EFII. However, provided that the permit is conditioned to require burial of the cable to a minimum of 1.5 meters below the ocean bottom and directionally drilled out to the 5-meter contour interval, we can conclude that the impacts would only be only minimal and temporary in nature. We have no further EFII conservation recommendations.

Practically every northwest Atlantic endangered or threatened species of the sea turtle and marine mammal has been documented somewhere along the proposed cable laying route. Our initial concerns focused on the potential for ship strikes and entanglements during the cable deployment and marine mammal entanglements associated with non-buried sections of the cable. The applicants provided detailed information explaining how the slow deployment speeds (.5 to 1.0 knots) would reduce the potential for ship strikes and the proposed option to bury the entire cable 1.5 meters below the ocean bottom would avoid the potential for post deployment entanglements. Therefore, provided that the permit is conditioned to require burial of the cable and at a deployment speed no greater than 1.0 knots, we can conclude that this project is not likely to adversely affect endangered sea turtles or whales that may be present in the project location. Accordingly, further consultation pursuant to Section 7 of the Endangered Species Act will not be necessary. However, if project plans change or new information becomes available that would modify the basis for this determination, then consultation should be reinitiated.

The portion of the project proposed to traverse the Gerry E. Studds Stellwagen Bank National Marine Sanctuary would require an authorization from the National Ocean Service (NOS) of NOAA and review under the National Environmental Policy Act of 1969 (NEPA). The NOS is currently making a determination regarding what level of NEPA analysis will be required and will inform you of the decision in a separate letter. NMFS will continue to coordinate with the NOS and the applicant as needed in the review/preparation of the NEPA documents.

If you have any questions regarding this letter, please contact Eric Hutchins of our Habitat Conservation Division at (978) 281-9313.

Sincerely,



Patricia A. Kurkul
Regional Administrator

cc: Chris Mantzaris – F/NER4
Edward Lindelof – N/ORM2
Tom Bigford – F/IIC2
David Webster – EPA (Boston)
Mike Bartlett – USFWS (Concord, NH)
Paul Diodati – MADMF (Boston)

File: MA-Lynn, Corps #99-2369
Worldwide Telecom, Inc.
Halifax to Lynn Cable



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT
Silver Spring, Maryland 20910

September 10, 1999

John Murphy
TYCO Submarine Systems
60 Columbia Turnpike
Morristown, NJ 07960

Transmitted by Fax

Dear Mr. Murphy:

This letter is in reference to the recent correspondence between the National Marine Sanctuary Program (NMSP) Office and Hardeep Sidhu of Seafloor Systems International, Inc. regarding additional testing of the proposed Hibernia Transatlantic cable route. In that correspondence we suggested that Mr. Sidhu contact Dr. Page Valentine) to obtain United States Geological Survey (USGS) maps of the Stellwagen Bank area. Mr. Sidhu responded that he had done so.

The USGS has unpublished maps that can be obtained by contacting Dr. Valentine (508-457-2239), which Mr. Hardeep has not done. The maps are developed from data collected in 1994-1996 and use multi-beam imagery, which shows the seafloor in great detail. These maps were developed for all of the Stellwagen Bank National Marine Sanctuary (SBNMS or Sanctuary), the areas immediately surrounding SBNMS, and parts of Massachusetts Bay. These maps represent the best available information regarding the bottom seafloor with the SBNMS, and must be used in choosing any potential routes through the Sanctuary.

Furthermore, as you are aware, the NMSP is required to conduct an environmental analysis under the National Environmental Policy Act (NEPA) prior to issuing you any permit or other authorization to install fiber optic cable in SBNMS. This analysis must include discussion of reasonable alternatives, including no action and alternative routes. We would like to work with you on the alternatives that should be developed for the NEPA analysis, as they must be alternatives that are acceptable to NOAA.

Once you have examined the above-referenced USGS maps, please contact Ed Lindelof, Acting SBNMS Manager (301-713-3145 x131) or me (x152) to discuss the



alternative analysis required under NEPA. Thank you for your continued cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "Helen M. Golde". The signature is fluid and cursive, with the first name "Helen" being more prominent than the last name "Golde".

Helen M. Golde
National Permit Coordinator
National Marine Sanctuary Program

cc: H. Sidhu, Seafloor Surveys International, Inc.
J. Vaccaro, Earth Tech, Inc.
P. Phibbs, World Wide Telecon
E. Lindelof, A. Scmraina, K. Van Dine, P. Auster, SBNMS
P. Valentine, USGS
G. Kelly, USACE
S. Thornton, NOAA/MSD
M. Weiss, S. Campbell, NOAA/GCOS

*Faxed to J.V.
9/2/99*



Marine Cable Engineering & Installation

Facsimile (Number of Pages 2)

DATE/TIME: 20 September 99 – 1900 USA EDT

To: Helen Golde, NOAA Marine Sanctuaries Division

Fax Number: +1-301-713-0404

Cc: John Vaccarro, Earth-Tech

Fax Number: +1-978-371-7889

Cc: Peter Phibbs, Worldwide Fiber Inc.

Fax Number: +1-604-681-0291

Cc: Don Hussong, Seafloor Surveys Inc.

Fax Number: +1-206-441-9308

From:

John Murphy

Senior Manager - Route Engineering

Patriots Plaza Room 2-168

60 Columbia Turnpike Building A

Morristown, New Jersey 07960

+1(973) 656-8292 +1(973) 656-8247 Fax

+1(908) 281-7041 (residence)

+1(973) 610-4284 (mobile)

jtmurphy@submarinesystems.com

Re: Hibernia Cable route in the vicinity of the Stellwagen Bank NMS

Dear Ms. Golde,

Thank you for your letter and fax dated 10 September regarding our investigation into available data for primary and alternate route considerations.

We would like to correct some inaccuracies in your letter. Though you state that we have not obtained any data from Dr. Valentine, we have in fact gathered digital data from Dr. Bill Swab of the same office. Our surveyor has also obtained some unpublished information from Dr. Valentines' offices. This information was utilized in the completion of the Desk Top Study for this system which was published in July of this year.

Additional information was gathered from the geological laboratories of the University of Maine from Dr. Dan Belknap. This was to further assess buriable routes either through our

primary route across the northern edge of Stellwagen Bank NMS or to an alternate routing we have selected around Jeffries Ledge which would avoid Stellwagen completely.

We are currently surveying both routes to provide alternatives as may be necessary for NEPA.

Should you have any questions, please feel free to call me.

Regards,



John T. Murphy



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Field Office
22 Bridge Street, Unit #1
Concord, New Hampshire 03301-4986



RE: Worldwide Fiber's Hibernia Project,
The Boston Landing - Lynn, MA
and coastal areas in the Gulf of Maine

September 27, 1999

Margaret Mills
Earth Tech
196 Baker Avenue
Concord, MA 01742

Dear Ms. Mills:

I have reviewed your request for information on endangered and threatened species and their habitats for the above-referenced project. My comments are provided in accordance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543).

Only one federally-listed species under the jurisdiction of the U.S. Fish and Wildlife Service occurs within the project area: the roseate tern (*Sterna dougallii*). In addition to the endangered roseate tern, there are several marine mammals in the Gulf of Maine such as the hump-backed whale (*Megaptera novaeangliae*), northern right whale (*Eubalaena glacialis*), and several sea turtle species that are federally-endangered. For more information on marine mammals and sea turtles, please contact the National Marine Fisheries Service, Northeast Region, One Blackburn Drive, Gloucester, MA 01930.

The roseate tern is a long-distance migrant, found along the Northeast Atlantic Coast during the breeding season from late April to mid-September. Nesting sites of the northeastern population occur from Long Island, New York to Cape Cod and Plymouth, Massachusetts, as well as along the coast of Maine and Nova Scotia. For maps of nesting sites within the Northeast, please see the enclosures (from the Roseate Tern Recovery Plan, Northeastern Population, U.S. Fish and Wildlife Service, 1998).

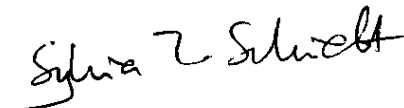
The roseate tern is an exclusively marine species. It usually breeds on small islands, but occasionally breeds along spits or peninsulas along barrier beaches. All nesting sites in the northeast are found in association with colonies of common terns (*Sterna hirundo*). During the primary breeding season (May to August), roseate terns forage on small schooling fish in relatively shallow waters. Some birds have been found to forage regularly up to 25 km away from the colony sites. During August and September, family groups disperse from breeding colonies and feed in preparation for southward migration. All roseate terns in the Northeastern Atlantic population gather in premigratory staging areas at inlets and barrier beaches from New York to

the Gulf of Maine during this period. During this premigratory period, birds feed offshore, but return daily to shore to rest and roost.

There are no known roseate tern nesting sites near the project's land fall in Cape Ann, Massachusetts, and it is unlikely that the cable burying procedures, as described in your project, will affect the roseate tern offshore. However, we request that you advise this office if offshore cable burying work is planned in the Gulf of Maine for the months of August and September, when roseate terns will be present prior to their southward migration.

Thank you for your cooperation and please call Sylvia Schmidt at 603-225-1411 if we can be of further assistance.

Sincerely yours,


for Michael J. Amaral
Senior Endangered Species Biologist
New England Field Office

Enclosures:

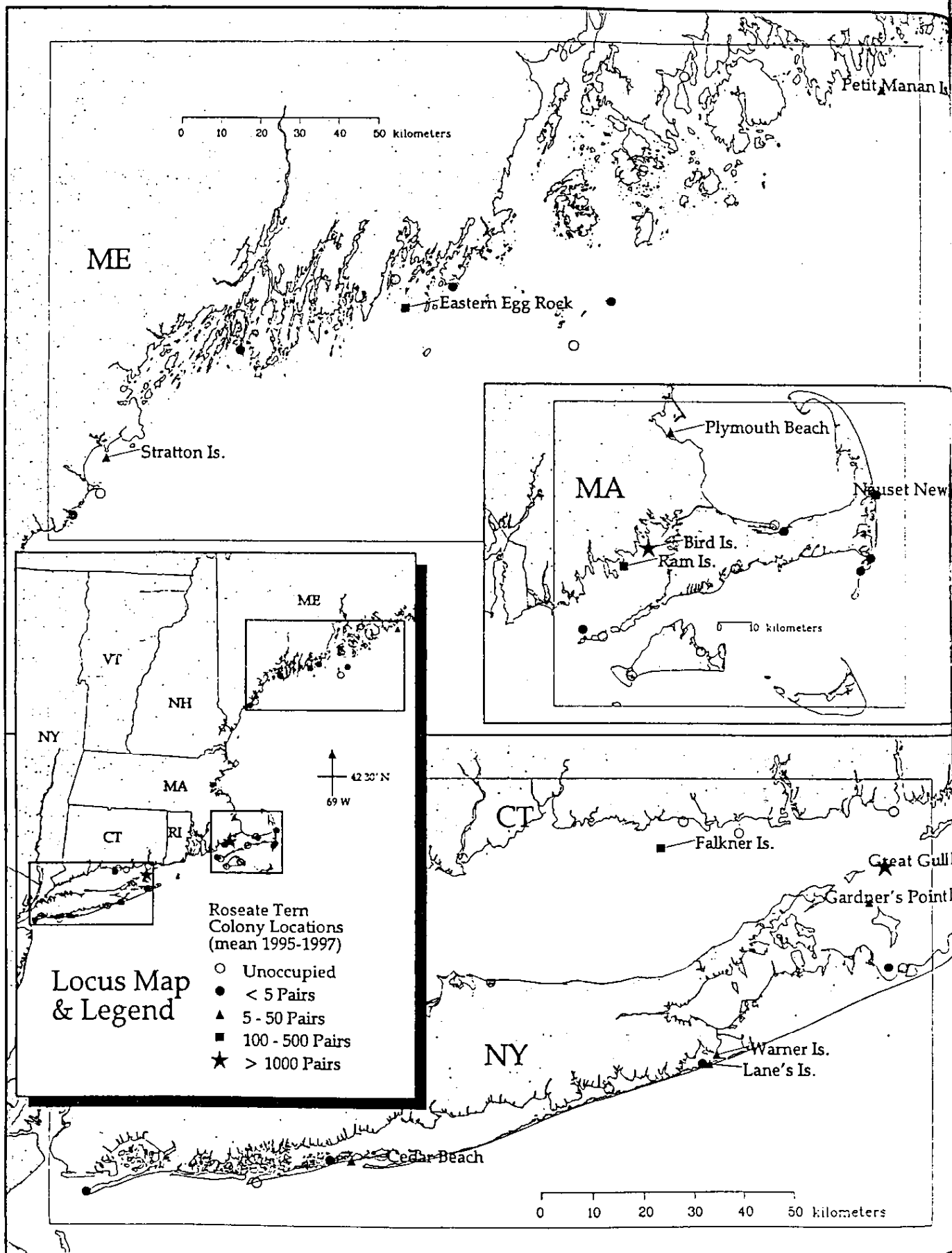
Figure 2. Roseate tern nesting sites in the Northeast from 1977-1988

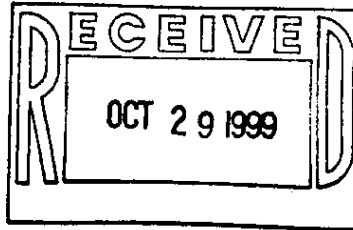
Figure 3. Roseate tern nesting sites in the Northeast from 1988-1997

Figure 2. Roseate tern nesting sites in the northeastern U.S. and Canada occupied one or more years, 1977-1988.



Figure 3. Nesting sites used by roseate terns in the northeastern U.S., 1989-1997.





October 20, 1999

Helen Golde
National Oceanic & Atmospheric Administration
1305 East-West Highway, 11th Floor
Silver Spring, MD 20910

Subject: **Worldwide Telecom Cable Project**

Telephone

978-371-4000

Dear Ms. Golde;

Facsimile

I am forwarding a copy of the Certificate of the Secretary of Environmental Affairs on the Environmental Notification Form for the Worldwide Telecom Hibernia Cable Project for your files.

978-371-2468

If you have any questions regarding this matter please do not hesitate to call me at 978-371-4234.

Very truly yours,
Earth Tech, Inc.

A handwritten signature in black ink, appearing to read "Matt Morais", written over a horizontal line.

Matt Morais

Enclosure



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Metropolitan Boston - Northeast Regional Office

ARGEO PAUL CELLUCCI
Governor

JANE SWIFT
Lieutenant Governor

BOB DURAND
Secretary

LAUREN LISS
Commissioner

September 28, 1999

Executive Office of
Environmental Affairs
100 Cambridge Street
Boston, MA 02202

RE: Lynn
Hibernia Fiber-Optic
ENF/EOEA #12026

Attn: MEPA Unit

Dear Secretary Durand:

The Department of Environmental Protection Northeast Regional Office has reviewed the Environmental Notification Form submitted by Worldwide Fiber, Inc. to construct a Trans-Atlantic fiber optics telecommunication cable that will be partially located within Massachusetts jurisdiction (EOEA #12026).

The project proponent is advised that any issues concerning the installation of the fiber-optic cable along the coastline of Lynn will be addressed in the review of the Notice of Intent, 401 Water Quality Certification, and Chapter 91 License. The project proponent should indicate in its applications how much dredging will be required for the project.

Although the Department is not aware of any confirmed active 21E sites along the proposed land-side of the route (along the Lynnway and Commercial Street in Lynn), if any of the proposed trenching operation occurs in the general vicinity of a gas station or other business where hazardous materials have been used or stored over a period of time (auto repair shop, electro-plating operation, etc.), there is a likelihood that localized soil contamination has occurred. If applicable, the location of these sites should be carefully reviewed prior to commencing the project. The project proponent is advised that removing and disposing of contaminated soil, pumping of contaminated groundwater, or working in contaminated media must be done under the provisions of MGL c.21E/21C and OSHA. Failure to obtain the necessary permits under these provisions beforehand may result in considerable delay of the project as well as administrative penalties.

This information is available in alternate format by calling our ADA Coordinator at (617) 574-6872.

205a Lowell St. Wilmington, MA 01887 • Phone (978) 661-7600 •
Fax (978) 661-7615 • TDD # (978) 661-7679

The DEP Northeast Regional Office appreciates the opportunity to comment on this proposed project. Please contact David Kennedy at (978) 661-7776 for further information on the waterways issues. If you have any general questions regarding these comments, please contact David Shakespeare, MEPA Review Coordinator at (978) 661-7797.

Sincerely,

John Felix,
Deputy Regional Director

cc: Dave Murphy, DEP/O&P Boston
David Kennedy, DEP/BRP NERO
Steve Johnson, DEP/BWSC NERO



The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street, Boston, MA 02202

ARGEO PAUL CELLUCCI
GOVERNOR

JANE SWIFT
LIEUTENANT GOVERNOR

BOB DURAND
SECRETARY

October 8, 1999

Tel. (617) 727-9800
Fax (617) 727-2754
<http://www.magnet.state.ma.us/envir>

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : Hibernia Fibre-Optic Telecommunication System
PROJECT MUNICIPALITY : Lynn, Beverly, Gloucester, Manchester, Marblehead, Salem, and Swampscott
PROJECT WATERSHED : North Coastal
EOEA NUMBER : 12026
PROJECT PROPONENT : Worldwide Fiber, Inc.
DATE NOTICED IN MONITOR : September 8, 1999

Pursuant to the Massachusetts Environmental Policy Act (M.G.L. c. 30, ss. 61-62H) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **does not require** the preparation of an Environmental Impact Report.

According to the Environmental Notification Form (ENF), the project involves construction of a high capacity fiber optic connection between cities in North America and Europe. The cable route from Europe makes landfall in Halifax, Nova Scotia. After crossing the Gulf of Maine, it uses a coastal route through the offshore waters of Beverly, Gloucester, Manchester, Marblehead, Salem, Swampscott, and Lynn, to an upland facility in Lynn. On land it will cross the MDC Lynn Beach Reservation Park, the Lynnway Rotary, the Lynnway, and Commercial Street to a cable station on a one-acre site at 83 Commercial Street in Lynn.

The project is subject to review pursuant to Section 11.03 (3)(b)1a, e & f of the MEPA regulations because it involves alteration of a coastal bank, alteration of more than one-half acre of wetlands, and construction of a structure in a velocity zone. It requires a Chapter 91 Waterways License, and Water Quality Certification from the Department of Environmental



Protection (DEP), Federal Consistency Review from the Coastal Zone Management (CZM) office, an easement or permit from the Metropolitan District Commission (MDC), compliance with Article 97 of the State Constitution, and Orders of Conditions from eight Conservation Commissions. Because the proponent is not seeking financial assistance from the Commonwealth, MEPA jurisdiction is limited to those aspects of the project that are within the subject matter of the state permits.

The ocean routes cross two ocean sanctuaries and the Stellwagen Bank National Marine Sanctuary. The proponent proposes to use a "sea plow" technology that will bury the cable approximately 1.5 meters below the ocean floor. The Department of Environmental Management and NOAA will provide input to the Waterways and COE permitting process. Marine rare and endangered mammals will also be considered in the process. I encourage the proponent to continue discussions with both agencies, to ensure that all applicable regulatory standards will be met.

The routes are being surveyed to minimize impacts to contaminated soils, fisheries, and archaeological resources. I ask that the results of those efforts be provided to this office for completion of the file.

Much of the inland route involves construction within floodplains, and may involve 21 E sites or potential archaeological sites. The DEP and MHC will be addressing these concerns.

The terminal building at 83 Commercial Street in Lynn will occupy approximately one half acre of the one acre site. Other communication carriers will be responsible for constructing the necessary connections to that facility. Details of the communication connections by other parties should be filed as Notices of Project Change for this project with the MEPA office.

Based on a review of the information provided by the proponent and after consultation with relevant public agencies, I find that the potential impacts of the project are not significant enough to warrant preparation of an Environmental Impact Report and can be addressed in the permitting process. No further MEPA review is required. The proponent should continue to work with the

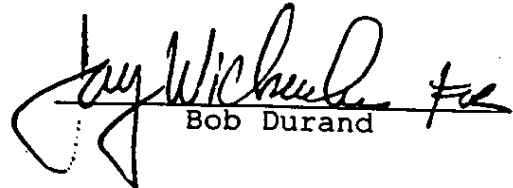
EOEA #12026

ENF Certificate

October 8, 1999

permitting agencies to finalize the routes and appropriate mitigation measures.

October 8, 1999
DATE


Bob Durand

Comments received : DEP - 9/28/99
DEM - 9/15, & 27/99
MCZM - 9/27/99
MHC - 9/27/99

BD/DES/ds



The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

RECEIVED

OCT 04 1999

MEPA

September 27, 1999

Secretary Bob Durand
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02202

ATTN: MEPA Unit

RE: Hibernia Fiber-Optic Telecommunication System Project, Lynn, EOEA #12026, MHC #RC.24669

Dear Secretary Durand:

Staff of the Massachusetts Historical Commission have reviewed the Environmental Notification Form for the proposed project referenced above. MHC understands that the project involves the installation of a fiber-optic cable beneath the seabed within Massachusetts waters. The upland portion of the cable will be installed within existing roadways except for a section that will traverse the MDC park between Lynn Beach and the Lynnway Rotary.

The off-road segment of the upland portion of the project route traverses an area that is archaeologically sensitive based on its proximity to recorded archaeological sites and favorable environmental features. Review of MHC's Inventory of the Historic and Archaeological Assets of the Commonwealth indicates that an archaeological site (MHC site #19-ES-623) associated with the Native American settlement of the Lynn area is located a short distance from the proposed route of the fiber-optic cable. Proximity to known archaeological sites is a strong indication that an area is likely to contain archaeological resources. Several sites including habitation areas, shell middens, and unmarked burials have been recorded along the coast of Nahant Bay, where a wide variety of coastal, marine, estuarine, and upland resources attracted Native American settlement over thousands of years. MHC requests that an intensive (locational) archaeological survey (950 CMR 70) be conducted for the proposed off-road upland segment of the cable route. The purpose of the intensive survey, which is conducted under a permit from the State Archaeologist (950 CMR 70) is to locate and identify archaeological sites that may be located within project impact areas.

The ENF notes (Schedule 10) that an archaeological survey of the undersea portion of the cable installation will be conducted. MHC concurs with this plan and requests that an intensive (locational) archaeological survey also be conducted for the undersea portion of this project. The purpose of the survey, which is conducted under permits from the State Archaeologist (950 CMR 70) and the Board of Underwater Archaeological Resources (BUAR) (31 CMR 2), is to locate and identify archaeological resources within underwater project impact areas.

These comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800), Massachusetts General Laws, Chapter 9, Sections 26-27C, as
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www.state.ma.us/sec/mhc

amended by Chapter 254 of the Acts of 1988 (950 CMR 70-71), and MEPA. If you have any questions, please feel free to contact Eric Johnson of my staff.

Sincerely,

A handwritten signature in cursive script that reads "Brona Simon".

Brona Simon
State Archaeologist
Deputy State Historic Preservation Officer
Massachusetts Historical Commission

xc: Matt Morais, Earth Tech
Scott Lyons, Worldwide Fiber (USA), Inc.
Victor Mastone, BUAR
Karen Kirk Adams, USACOE-NED-Regulatory
Kate Atwood, USACOE-NED
Massachusetts CZM
DEP, Northeast Regional Office
Thomas Mahlstedt, MDC
Lynn Historical Commission



THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
OFFICE OF COASTAL ZONE MANAGEMENT
100 CAMBRIDGE STREET, BOSTON, MA 02202
(617) 626-1200 FAX: (617) 626-1240

05

MEMORANDUM

RECEIVED
SEP 29 1999

MEPA

To: Bob Durand, Secretary, EOE
Attn: Dave Shepardson, MEPA Unit
From: Tom Skinner, Director, MCZM
Date: September 29, 1999
Re: EOE # 12026, Hibernia Fibre-Optic Telecommunications System Project, Lynn

The Massachusetts Coastal Zone Management (MCZM) Office has completed its review of the above-referenced Environmental Notification Form (ENF), noticed in the Environmental Monitor dated September 8, 1999, and recommends the preparation of an Environmental Impact Report.

The proposed project entails use of a "sea plow" technology to bury a Halifax-to-Boston segment of a fibre-optic telecommunications cable about 1.5 meters below the ocean floor. The proposed route will take the cable through the waters of several North Shore towns, through Massachusetts Ocean Sanctuaries, and through a section of the Stellwagen Bank Marine Sanctuary. Federal regulations at 15 CFR 922, Subpart M require authorization by the Sanctuary for installation and operation of the cable within the Sanctuary.

In the past, MCZM has commented on the construction of pipelines and has requested the pipeline be buried at least six feet below the ocean floor, where technologically feasible, to avoid conflicts with fisheries and other gear. While the difference below the sea floor may be minor, we would like to encourage the cable be buried as deep as possible to prevent the cable from obstructing fishing operations and protecting the cable from damage due to trawling doors used in fishing operations. In addition, for many years AT&T has provided the fishing industry with educational material on cable location, what to do, and who to call if a vessel snags a cable. That same educational program should be provided to area fishermen by the project proponent.

The route of this cable will be through Essential Fish Habitat (EFH). The proponent should consult with the National Marine Fisheries Service on minimizing any impact to such habitat. MCZM is particularly concerned about the effects of trenching effects on the water column, marine water quality, and flora and fauna.

The proposed route is through critical habitat for the endangered right whale. MCZM requests that the applicant detail methods of

avoiding entanglements with this and other marine mammals as the cable is laid and with exposed portions of the cable after it is on the ocean bottom.

During construction, the project will create noise. This noise and its impact should be evaluated in relation to marine mammals in the area during construction. In addition, portions of the cable may create strumming noise (lateral movement of the cable on the seafloor due to ocean currents). This noise, should it occur, may affect marine animals and should be evaluated.

The project will generate a substantial amount of data on surface geology of the final route and alternate routes. MCZM requests that these data be made available to the USGS, NMFS and the Commonwealth.

A structure/facility will be needed to house the cable as it comes ashore. This should be flood proof and not cause any coastal erosion.

The proposed project may be subject to MCZM federal consistency review. For further information on this process, please contact Jane W. Mead, MCZM Project Review Coordinator, at 617-626-1219.

TWS/JEP

cc: Greg Carrafiello, Section Chief,
Waterways Regulation Program, Massachusetts DEP
Jim Sprague, Section Chief,
Northeast Regional Office, Massachusetts DEP
Andrea Cooper,
MCZM North Shore Regional Coordinator

To: Dave Shepardson@MEPA@EOEA
From: Mike Gildesgame@RC@DEM Boston
Cc: Peter Webber@Admin@DEM Boston, Martin Suuberg@RC@DEM Boston,
Richard Thibedeau@RC@DEM Boston, James Sprague@brp ww@DEP NERO,
Jane Mead@CZM@EOEA
Subject: EOEA #12026
Attachment:
Date: 9/27/99 4:19 PM

I am providing preliminary comments on the proposed Hibernia Fibre-Optic Telecommunications system project, EOEA #12026.

The proposal would install fibre optic cable from Europe, across the northern point of the Stellwagen National Marine Sanctuary, across portions of the North Shore and South Essex Ocean Sanctuaries, and terminate in Lynn. The last portion of the project, where the cable would come ashore in Lynn, would be south of the South Essex Ocean Sanctuary boundary.

The project proposes to use "sea plow" technology to bury the cable about 1.5 meters below the ocean floor. This technology, as described, involves no dredge spoils and purports to have minimal impacts to the seabed and ecology.

Because the project is subject to chapter 91, the Ocean Sanctuaries Program will comment more formally when we receive and review the completed ch. 91 application from DEP; however, I am concerned about the impacts to the seabed and ecology of the area affected by the plow vehicle and plow itself. I will also consult with DMF and CZM regarding any concerns they may have regarding this proposal. I also would like clarification if DPU approval is required for this project.

While "the laying of cables approved by the department of public utilities" is specifically approved by the Ocean Sanctuaries Act, we will need to determine if the specific technology will constitute "exploitation, development, or activity that would significantly alter or otherwise endanger the ecology... of the ocean, the seabed, or subsoil thereof...".

Thank you.

To: Dave Shepardson@MEPA@EOEA
From: Debbie L. Graham@RC@DEM Boston
Cc: Mike Gildesgame@RC@DEM Boston
Subject: re: MEPA meetings Lynn CABLE
Attachment:
Date: 9/15/99 2:34 PM

Hi Dave, I'm "retiring" from DEM this week but passed your email along to Mike Gildesgame who hopes to send someone on the 21st.

S 16 of the Ocean Sanctuaries Act lists cables as permitted as long as approved by the Dept. of Public Utilities. I asked Matt at Earth Tech to find out whether they need DPU approval for this type of cable.

It's been nice working with you....Bye



Division of Fisheries & Wildlife

Wayne F. MacCallum, *Director*

1 October 1999

Margaret A. Mills
Earth Tech
196 Baker Ave.
Concord, MA 01742

Re: Worldwide Fiber's Hibernia Project - The Boston Landing
Lynn, MA
NHESP File: 99-5700

Dear Ms. Mills,

Thank you for contacting the Natural Heritage and Endangered Species Program for information regarding state-protected rare species in the vicinity of the project referred to above.

At this time we are not aware of any rare plants or animals or exemplary natural communities that would be adversely affected by the proposed project.

This review concerns only rare species of plants and animals and ecologically significant natural communities for which the Program maintains site-specific records. This review does not rule out the possibility that more common wildlife or vegetation might be adversely affected by the project, especially if it will modify currently undeveloped areas. Should project plans change, or new rare species information become available, this evaluation may be reconsidered.

Please call me at (508) 792-7270 x165 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Hanni Dinkeloo".

Hanni Dinkeloo
Endangered Species Counsel



Natural Heritage & Endangered Species Program

Route 135, Westborough, MA 01581 Tel: (508) 792-7270 x 200 Fax: (508) 792-7275
An Agency of the Department of Fisheries, Wildlife & Environmental Law Enforcement
<http://www.state.ma.us/dfwele>



THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
OFFICE OF COASTAL ZONE MANAGEMENT
100 CAMBRIDGE STREET, BOSTON, MA 02202
(617) 626-1200 FAX (617) 626-1240

March 27, 2000

Matt Morais
Earth Tech
196 Baker Avenue
Concord, MA 01742

RE: Federal Consistency Certification: Worldwide Telecom Hibernia Project;
Lynn

Dear Mr. Morais:

The Massachusetts Coastal Zone Management (MCZM) office has completed its review of the proposed project to install a fiber optic cable beneath the seabed within Massachusetts' waters.

We concur with your certification and find that the activity as proposed is consistent with the MCZM enforceable program policies.

If the above-referenced proposal, which has received this concurrence from MCZM, is modified in any manner or is noted to be having effects on the coastal zone or its uses that are substantially different than originally proposed, please submit an explanation of the nature of the change to this Office pursuant to 301 CMR 21.17 and 15 CFR 930.66.

Thank you for your cooperation with MCZM.

Sincerely,

for Thomas W. Skinner
Director

TWS/JEP

cc: Karen Kirk Adams, Chief Regulatory Branch, US Army Corps of Engineers
James Sprague, Section Chief Northeast Regional Office, MA DEP
Greg Carrafiello, Section Chief Waterways Program, MA DEP
Andrea Cooper MCZM's Northshore Regional Coordinator

→ south, nine good comments

2

facsimile transmittal

REC'D 33

To:	William Douros, MBNMS	Fax:	647-4250
From:	Martha Diehl	Date:	08/23/99
Re:	Comments on Cable Routing	Pages:	3

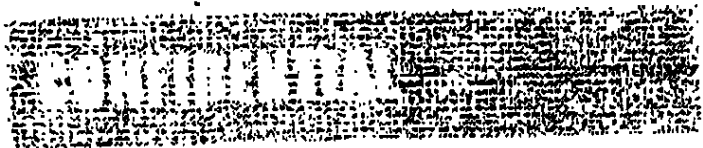
Mr. Douros:

My name is Martha Diehl. I am a fourth-generation resident of the south coast. I retired in May of this year from my position as Master of the Cable Ship Global Mariner, for Tyco, Inc. During my 15 or so years with TCSC/Tyco, I have installed and/or repaired literally thousands of kilometers of buried telephone cable all over the world.

I find that I am concerned about the installation of buried cable in my neighborhood. I would like to be sure that there are good, realistic questions and answers throughout the process of deciding cable routes and handling. In my experience this hands-on perspective is often not available during the planning stages, and just this once I'd like to help fill in that gap.

Some samples of the kinds of questions that I think should be addressed would include:

1. Discuss the impact of launch/recovery/damaged ROV operations on our environment. This isn't MBARI, and the vehicles are all hydraulic. Given the substrate and the sea conditions, they will be roughly used. In my experience, rocks are almost always harder than ROV's. There will be malfunctions. Hydraulic fuel will leak, and burial will be non-continuous. Retro-burial will not be able to fill in the gaps if the bottom is not cooperative. Rock-dumping is expensive and messy. What is anticipated in this regard, and is it okay with the Sanctuary?
2. Cables almost always require repair. Buried cables are harder to get to, and repair operations include digging up enough of the cable to fix any faults. This is a very low tech process, which involves dragging massive steel hooks across the cable track



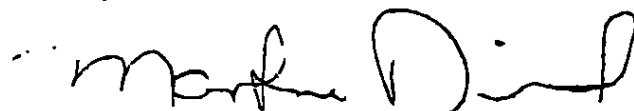
until one catches it. This is not without environmental impact. Have you had a chance to discuss repair plans with the installation people? Often they are not very involved with the details of such operations, since they are managed by different people.

2

I could write more, but perhaps it would be better to speak with you and find out if these thoughts are of use. If so, I would be glad to do whatever you suggest in order to help us reach a good, well considered conclusion. Please call me if you would like to explore this. As a retired person, I am pretty much at your disposal! In addition, I am not unknown in the industry, which might also be useful in negotiations.

I'm including the brief version of my CV, for the sake of credibility.

Best regards,



Martha Diehl

2

Martha V. Diehl
Garrapata Trout Farm
35811 Hwy 1
Monterey, CA 94940
Phone: 831-625-9621
Fax: 831-625-1468

SUMMARY OF QUALIFICATIONS

Martha V. Diehl
Master Mariner

I graduated with honors from the United States Merchant Marine Academy in 1979 with a Third Mate's license and a B.S. degree in Marine Transportation. I sailed as a deck officer on black oil tankers, general cargo ships, and special product carriers until 1983, when I joined the Cable Ship Long Lines and began work for Transoceanic Cable Ship Company (now TYCO Submarine Systems). I have been employed by TYCO continually since then, sailing as Master first in 1989 and then continually since 1992 as permanent Master aboard the Global Mariner.

I joined the Long Lines in 1983. At that time the vessel was engaged not only in support of the existing coaxial cable (ACMA standby/ Wilmington N.C.) but in the initial testing and development of fiber cable and the supporting technology. As a junior officer I participated in numerous repairs, trials, and installations. I was aboard the CS Long Lines for the AT&T Optican testing, and have been actively involved in system installation and repair since then (chronology available upon request).

This has lead to familiarity with navigation technology to survey quality accuracy, as well as training in both conventional shiphandling and DP operation. I also have had experience in operations involving multiple ships and remotely operated vehicles, specifically SCARAB II and IV and SeaPlowVII as well as the Oceaneering SMD Seabed Tractor and various burial/inspection/rock dumping platforms of opportunity in the North Sea.

Most recently (Summer/98) I was in command of the Global Mariner for the AC1 SegA5 installation, which included 800km of burial using SPVII and 13 pipeline crossings. This section of AC1 was completed successfully and on schedule.

I retired from sailing as of May 1999, with 20 years service.

MARINE LICENSES

Master, Steam and Motor Vessels of Any Gross Tons Upon Oceans
Radar Observer, Unlimited
STCW Certificate - Master
GMDSS Operator (FCC)